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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,574	10/24/2001	Hannu Kuoksa	33047/240187	5083

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EXAMINER	
HENDRICKSON, STUART L	
ART UNIT	**PAPER NUMBER**
1754	12

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

F-K

Office Action Summary

Application No.	Applicant(s)
003574	Fukaya
Examiner	**Group Art Unit**
Rodriguez	1754

—The MAILING DATE of this communication appears on th cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 1/27/03.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-16, 26 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-16, 26 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)–(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)–(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Stat m nt(s), PTO–1449, Paper No(s). _____

☐ Intervi w Summary, PTO–413

☐ Notice of Reference(s) Cited, PTO–892

☐ Notice of Informal Pat nt Application, PTO–152

☐ Notice of Draftsperson's Patent Drawing Revi w, PTO–948

☐ Other _____

Office Action Summary

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-16 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) It is unclear exactly what the process is; the chemical reactions should be set forth as to the exact product made.

B) In claim 10, 'a production curve' is unclear as to what it refers.

C) In claim 7, 'dynamic' is unclear. How does it evolve or change?

D) Claim 8 is unclear why the target should change. The claim seems to say that if the temperature is too high, then change the temperature you want so that it also is too high.

E) The claims as a whole are unclear as to how the 'model' (computer control program?) works and how the values are calculated.

F) In claim 4, it is not clear how the model in and of itself produces anything, let alone causticity change. One changes causticity by shifting the equilibrium, adding or removing reagents.

G) In claim 26, 'weak' is subjective and unclear.

Claims 1-16 and 26 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no disclosure of how to calculate the 'coefficient' (claim 11), how to decide when the model/target is wrong. It appears in claim 1 that 'calculating', rather than 'controlling' is meant. How does the mere mental steps or computer calculation affect the density of a material in a beaker? Claim 16 appears to be a necessary part of claim 1, and should be

incorporated therein. If these are not measured, how does one exert control, know what to alter or verify that the process is going as it should?

Claims 1-16 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baines taken with Mosow.

Baines teaches in columns 5 and 9 computer control of a causticization process. The computer can monitor any parameter characteristic of the system and send via a feedbck loop controls to other inputs to achieve a stable reaction system. The only differences seen between this and the claims is what variables are monitored. Musow teaches in column s2 and 4 that each system can have a different variable measured, like titratable alkali or density.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to monitor the density or alkali in the process of Baines because doing so asserts control over the process for monitoring for optimum results. Note that in general, processes can be optimized (In re Boesch 205 USPQ 215) and that automating a process is an obvious expedient (In re Venner et al. 120 USPQ 192). The workings of how the computer makes calculations (claims 8, 12, 14) is deemed conventional as to how computer control programs work- see Baines column 9. Choosing coefficients which accurately model reality is an obvious expedient, to assure efficiency.

Applicant's arguments filed 1/27/03 have been fully considered but they are not persuasive. The arguments concerning the '112 rejections indicate that computer control is well known. If so, then perhaps Jepson format is more appropriate, or the details should not be claimed. Moreover, this position appears to bolster the strength of the holding under '103 that the process is obvious. Perhaps in claim 3 line 3 (see also claim 8) that 'temperature difference control' should be just 'temperature control', in accordance with what is argued. That applicant chooses

not to monitor alkali, but instead monitor density- and immediately convert it to alkali, is an obvious expedient, given a known relationship between the two. The scheme used in the claims is thus tantamount to, and obvious to, to what is known in the art. In so far as part of the invention is the computer control model/program, the details thereof need to be elucidated.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.

Stuart Hendrickson
examiner Art Unit 1754